BRUHAT BENGALURU MAHANAGARA PALIKE

Name of work **:- Improvements of roads,drains and other allied works at Sindhi College and surrounding area in ward no. 09 hebbala Kempapura.**

Estimate Cost Rs. 10000000.00

Sl No	Description	Unit	No	Dimensions L	B	D	Qty	Rate	Amount
1	2	3	4	5	6	7	8	9	10
1	Removing and resetting of footpath slab (Approved arrival rate).	Sqm							
	Sindhi College Road		2	650.00	0.90		1170.00		
	1st Main Road MuniSwamy Layout		2	300.00	0.90		540.00		
	Sindhi College opp Road		1	400.00	0.90		360.00		
	1st Cross		2	92.00	0.90		165.60		
	6th Cross		2	90.00	0.90		162.00		
						Sub-Total	**2397.60**		
	Deduct 20% Missing Slabs					0.20	479.52		
						Sub-Total A	**1918.08**		
	Culvert								
			5	6.00	1.50		45.00		
						Sub-Total	**45.00**		
	Deduct 20% Missing Slabs					0.20	9.00		
						Sub-Total B	**36.00**		
						Total A+B	**1954.08**	**235.00**	**459209.00**
	Data Rate	**235.00**							
2	Removing and resetting of kerb stone (Approved arrival rate).	Rmtr							
	Sindhi College Road		2	650.00			1300.00		
	1st Main Road MuniSwamy Layout		2	300.00			600.00		
						Sub-Total	**1900.00**		
	Deduct 20 % Missing Kerbs					0.20	380.00		
						Total	**1520.00**	**118.00**	**179360.00**
	Data Rate	**118.00**							
3	Earth work excavation by manual means for drains,canals, waste weir draft, approach channels, key trench, foundation of Bridges and such similar works, as per drawing and technical specifications, including setting out, shoring, strutting, barricading, caution lights, excavated surface leveled and sides neatly dressed disposing off or leveling the excavated stuff or sorting & stacking the selected stuff for reuse in a radius of 50 m and lift upto 1.5 m including cost of labour, tools, usage & other appurtenances required to complete the work. In ordinary/soft rock without blasting upto 1.5 m depth (Item No 1.4.1 (Vol-I) Page No 5). of PWD SR 2023-24	Cum							
	Drain Desilting								
	Sindhi College Road		2	650.00	0.90	0.45	526.50		
	1st Main Road MuniSwamy Layout		2	300.00	0.60	0.45	162.00		
	Sindhi College opp Road		1	400.00	0.90	0.45	162.00		
	1st Cross		2	92.00	0.90	0.45	74.52		
	6th Cross		2	90.00	0.90	0.45	72.90		
	New RCC Drain								
	6th Cross Vayunandana Layout		2	80.00	1.20	1.00	192.00		
	Culvert Desilting								
			5	6.00	0.90	0.50	13.50		
	For New Rcc culvert								
			5	6.00	1.80	1.20	64.80		
						Total	**1268.22**	**266.20**	**337600.00**
	Basic Rate	**242.00**							
	Area Waeightage @ 10%	24.20							
	Total Rate	**266.20**							

Sl No	Description	Unit	No	Dimensions L	B	D	Qty	Rate	Amount
4	Providing and laying in position plain cement concrete for levelling course for all works in foundation. The granite/trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed, laid in layers not exceeding 150 mm thickness, well compacted using plate vibrators, including all lead & lifts, cost of all materials of quality, labour, Usage charges of machineries, curing, and all the other appurtenances required to complete the work as per technical specifications. (The cost of steel reinforcement & formwork shall be paid separately) Mix 1:3:6 (M10) Using 20 mm nominal size graded crushed coarse aggregates (Item No 2.1.4 (Vol-I) Page No 15,of PWD SR 2023-24	Cum							
	Copping Concrete								
	Sindhi College Road		4	650.00	0.20	0.10	52.00		
	1st Main Road MuniSwamy Layout		4	300.00	0.20	0.10	24.00		
	Sindhi College opp Road		2	400.00	0.20	0.10	16.00		
	1st Cross		4	92.00	0.20	0.10	7.36		
	6th Cross		4	90.00	0.20	0.10	7.20		
	New RCC Drain								
	6th Cross Vayunandana Layout		2	80.00	1.20	0.10	19.20		
	For Culvert								
			10	6.00	0.20	0.10	1.20		
	For Culvert Ramp								
			10	6.00	1.00	0.20	12.00		
			10	6.00	1.00	0.20	12.00		
	For New Rcc culvert Bed Concrete								
			5	6.00	1.60	0.15	7.20		
						Total	**158.16**	**6838.70**	**1081609.00**
	Basic Rate	**6217.00**							
	Area Waeightage @ 10%	621.70							
	Total Rate	**6838.70**							
5	Providing and laying in Reinforced cement concrete for all Basement & surface level works, return walls, retaining walls, sunken floors etc. The granite/trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed with super plasticisers, laid in layers, well compacted using needle vibrators, providing weep holes wherever necesary, including all lead & lifts, cost of all materials of quality, labour, Usage charges of machinery, curing and all other appurtenances required to complete the work as per technical specifications. (The cost of steel reinforcement & formwork to be paid separately)M25 Design Mix Using 20 mm nominal size graded crushed coarse aggregates(Item No 2.3.2 (Vol-I) Page No 16,of PWD SR 2023-24	Cum							
	For New Rcc culvert								
	For Raft		5	6.00	1.60	0.20	9.60		
	For Side Wall		10	6.00	0.20	0.90	10.80		
						Sub total	**20.40**		
	New RCC Drain								
	Raft								
	6th Cross Vayunandana Layout		2	80.00	1.20	0.15	28.80		
	Side Wall								
	6th Cross Vayunandana Layout		4	80.00	0.15	0.60	28.80		
						Sub total	**57.60**		
						Total	**78.00**	**7840.80**	**611582.00**
	Basic Rate	**6480.00**							
	Area Waeightage @ 10%	648.00							
	Total Rate	**7128.00**							
	Centring & Shuttering @ 10%	712.80							
	Total Rate	**7840.80**							

Sl No	Description	Unit	No	Dimensions			Qty	Rate	Amount
				L	B	D			
6	Supplying, fitting and placing TMT FE 550 / 550D Steel Reinforcement including cost of all materials, machinery, labour, cleaning, straightening, cutting, bending, hooking, laping/welding joints, tying with binding wire / soft annealed steel wire and other ancilary operations complete as per drawing and technical specification All other type of structures(Item No 2.11 h (Vol-I) Page No 18,of PWD SR 2023-24	Tonne							
	Qty Vide item no 5. 90Kg /Cum for Culvert		1	20.40		90.00	1836.00	KG	
	Qty Vide item no 5. 60Kg /Cum For Drain		1	57.60		60.00	3456.00	KG	
							5292.00	KG	
							5.29		
						Total	**5.29**	**86912.10**	**459939.00**
	Basic Rate	**79011.00**							
	Area Waeightage @ 10%	7901.10							
	Total Rate	**86912.10**							
7	Providing and laying 100mm thick pre-cast cover slabs over Road side drains / utility ducts / Rain water harvesting pit of width not exceeding 1000 mm using M20 concrete reinforced with TMT bars Fe 550 @ 6kg/m2, slabs jointed in CM 1:3 proportion and nicely finished Including providing holes in the Cover slabs wherever necessary for easy drain age of urface water including of labour, materials, scaffolding, usage of machinery, curing, lead and lift charges etc, Complete.(Item No 17.14 (Vol-II) Page No 177,of PWD SR 2023-24	Sqm							
	New 100mm Slabs								
	Qty vide item no 1 take 20% for missing/damaged Slabs		1	479.52	--	--	479.52		
	New RCC Drain								
	6th Cross Vayunandana Layout		2	80.00	0.90		144.00		
						Total	**623.52**	**1287.00**	**802470.00**
	Basic Rate	**1170.00**							
	Area Waeightage @ 10%	117.00							
	Total Rate	**1287.00**							
8	Providing and fixing **230 mm thick** pre cast reinforced concrete slab as per design and drawing material cost, transportation, hire charges of machinery complete with all lead and lift conveyance charges labour charges inclusive of cost of all materials (As per data rate).	Sqm							
	New 230mm Slabs								
	Qty vide item no 1 take 20% for missing/damaged Slabs		1	9.00	--	--	9.00		
	For New Culvert		5	6.00	1.80	--	54.00		
						Total	**63.00**	**5037.00**	**317331.00**
	Data Rate	**5037.00**							
9	Providing and fixing pre cast solid cement concrete kerb stones made out of M20 with top and bottom width 114 and 165 mm respectively, 400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting including formwork, curing, including cost of materials, labour charges of machinery, loading and unloading, lead and lift, transportation ete.,complete as directed by the Engineer in Charge of the work (excluding GST and Area Leading Charges) (Data Rate).	Nos							
	New Kerb Stones								
	Qty vide item no 1 take 20 % for missing/damaged Kerbs		1	380.00	--	--	380.00		
							380.00		
						0.45	**844.44**		
						Total	**845.00**	**507.00**	**428415.00**
	Data Rate	**507.00**							
10	Painting two coats after filling the surface with synthetic enamel paint in all shades on new plastered concrete surfaces(Item No 8.10 (Vol-III) Page No 66).of PWD SR 2023-24	Sqm							
	1st Main Road MuniSwamy Layout		2	300.00		0.35	210.00		

Sl No	Description	Unit	No	Dimensions			Qty	Rate	Amount
				L	B	D			
	Sindhi College Road		2	650.00		0.35	455.00		
						Total	**665.00**	**119.90**	**79734.00**
	Basic Rate	**109.00**							
	Area Waeightage @ 10%	10.90							
	Total Rate	**119.90**							
11	Earth work in surface excavation by mechanical means for lowering & leveling the ground for all works other than foundation in all kinds of soils & upto depth not exceeding 300mm as per drawing and technical specifications, including setting out, shoring, strutting, barricading, caution lights, removal of stumps and other deleterious matter including dressing of excavated surfaces, disposing off or levelling the excavated earth or sorting & stacking the selected earth for reuse in a radius of 50 m and lift upto 1.5 m including cost of labour, tools, usage of machinery & other appurtenances required to complete the work (Vol - I, Page No. 8, Item No. 1.12 of PWD SR 2023-24)	**Cum**							
	For Asphalt Road								
	1st Main Road MuniSwamy Layout		1	300.00	5.00	0.20	300.00		
	1st Cross		1	92.00	5.00	0.20	92.00		
	6th Cross		1	90.00	6.50	0.20	117.00		
	6th Cross Vayunandana Layout		1	80.00	6.50	0.20	104.00		
	Cross Road		1	152.00	5.00	0.20	152.00		
						Sub total	**765.00**		
	Consider 20% Damage					0.20	**153.00**		
						Total	**153.00**	**104.50**	**15989.00**
	Basic Rate	**95.00**							
	Area Waeightage @ 10%	9.50							
	Total Rate	**104.50**							
12	Providing, laying, spreading and compacting graded stone aggregate to **wet mix macadam** specification including premixing the Material with water at OMC in mechanical mix plant carriage of mixed Material by tipper to site, laying in uniform layers with paver/grader in sub-base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density.(Vol - III, Page No. 26, Item No. 4.17 of PWD SR 2023-24)	**Cum**							
	For Asphalt Road								
	1st Main Road MuniSwamy Layout		1	300.00	5.00	0.15	225.00		
	1st Cross		1	92.00	5.00	0.15	69.00		
	6th Cross Vayunandana Layout		1	90.00	6.50	0.15	87.75		
	6th Cross Vayunandana Layout		1	80.00	6.50	0.15	78.00		
	Cross Road		1	152.00	5.00	0.15	114.00		
						Sub total	**573.75**		
	Consider 20% Damage					0.20	**114.75**		
						Total	**114.75**	**2814.90**	**323010.00**
	Basic Rate	**2559.00**							
	Area Waeightage @ 10%	255.90							
	Total Rate	**2814.90**							
13	Providing and applying primer coat with SS1 grade Bitumen Emulsion on prepared surface of granular base including cleaning of road surface and spraying primer at the rate of 0.70 kg/m2 using mechanical means.(PWD SR 2023-24, Item No 5.1 Page No 31 Vol - III)	**Sqm**							
	For Asphalt Road								
	1st Main Road MuniSwamy Layout		1	300.00	5.00		1500.00		
	1st Cross		1	92.00	5.00		460.00		
	6th Cross		1	90.00	6.50		585.00		
	6th Cross Vayunandana Layout		1	80.00	6.50		520.00		
	Cross Road		1	152.00	5.00		760.00		
						Sub total	**3825.00**		
	Consider 20% Damage					0.20	**765.00**		
	For Profile Correction								
	1st Main Road MuniSwamy Layout		1	300.00	5.00		1500.00		

Sl No	Description	Unit	No	Dimensions L	B	D	Qty	Rate	Amount
	1st Cross		1	92.00	5.00		460.00		
	6th Cross		1	90.00	6.50		585.00		
	6th Cross Vayunandana Layout		1	80.00	6.50		520.00		
	Cross Road		1	152.00	5.00		760.00		
					Sub total		3825.00		
						0.15	573.75		
	Consider 15% Damage					Total	1338.75	45.10	60378.00
	Basic Rate	41.00							
	Area Waeightage @ 10%	4.10							
	Total Rate	45.10							
14	Providing and laying Dense Graded Bituminous Macadam with 40/60 TPH capacity HMP using crushed aggregates of specified grading, premixed with bituminous binder VG-30, @ 4.5 per cent by weight of total mix and filler, transporting the hot mix to work site, laying with mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRTH specification clause No. 505 complete in all respects. (PWD SR 2023-24, Vol-III, Page No-35,Item No-5.12C	Cum							
	For Asphalt Road								
	1st Main Road MuniSwamy Layout		1	300.00	5.00	0.05	75.00		
	1st Cross		1	92.00	5.00	0.05	23.00		
	6th Cross		1	90.00	6.50	0.05	29.25		
	6th Cross Vayunandana Layout		1	80.00	6.50	0.05	26.00		
	Cross Road		1	152.00	5.00	0.05	38.00		
					Sub total		191.25		
						0.20	38.25		
	Consider 20% Damage								
	For Profile Correction								
	1st Main Road MuniSwamy Layout		1	300.00	5.00	0.05	75.00		
	1st Cross		1	92.00	5.00	0.05	23.00		
	6th Cross		1	90.00	6.50	0.05	29.25		
	6th Cross Vayunandana Layout		1	80.00	6.50	0.05	26.00		
	Cross Road		1	152.00	5.00	0.05	38.00		
					Sub total		191.25		
	Consider 15% Damage					0.15	28.69		
						Total	66.94	10393.90	695742.00
	Basic Rate	9449.00							
	Area Waeightage @ 10%	944.90							
	Total Rate	10393.90							
15	Providing and applying tack coat with RS1 Bituminous Emulsion using emulsion pressure distributor at the rate of 0.20 kg/m2 on the prepared bituminous surface cleaned with mechanical broom.(PWD SR 2023-24 Vol -III,Pg No. 31, Item No 5.3)	Sqm							
	1st Main Road MuniSwamy Layout		1	300.00	5.00		1500.00		
	1st Cross		1	92.00	5.00		460.00		
	6th Cross		1	90.00	6.50		585.00		
	6th Cross Vayunandana Layout		1	80.00	6.50		520.00		
	Cross Road		1	152.00	5.00		760.00		
						Total	3825.00	13.20	50490.00
	Basic Rate	12.00							
	Area Waeightage @ 10%	1.20							
	Total Rate	13.20							
16	Providing and laying Bituminous Concrete with 40/60 TPH capacity hot mix plant using crushed aggregates of specified grading, premixed with bituminous binder VG-30, @ 5.4 per cent of mix and filler, transporting the hot mix to work site, laying with mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 507 complete in all respects (V-III, P.No.38, I.No.5.16C of PWD SR 2023-24).	Cum							
	1st Main Road MuniSwamy Layout		1	300.00	5.00	0.04	60.00		

Sl No	Description	Unit	No	Dimensions			Qty	Rate	Amount
				L	B	D			
	1st Cross		1	92.00	5.00	0.04	18.40		
	6th Cross		1	90.00	6.50	0.04	23.40		
	6th Cross Vayunandana Layout		1	80.00	6.50	0.04	20.80		
	Cross Road		1	152.00	5.00	0.04	30.40		
						Total	153.00	12049.40	1843558.00
	Basic Rate	10954.00							
	Area Waeightage @ 10%	1095.40							
	Total Rate	12049.40							
17	Road Marking with Hot Applied Thermoplastic Compound with Reflectorising Glass Beads on Bituminous Surface Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads @ 250 g/m2 area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35:2015.The finished surface to be level, uniform and free from streaks and holes (PWD SR 2023-24,Item No 8.15 Page No 67 Vol -III).	Sqm							
	1st Main Road MuniSwamy Layout		2	300.00	0.10		60.00		
	1st Cross		2	92.00	0.10		18.40		
	6th Cross		2	90.00	0.10		18.00		
	6th Cross Vayunandana Layout		2	80.00	0.10		16.00		
	Cross Road		2	152.00	0.10		30.40		
						Total	142.80	583.00	83252.00
	Basic Rate	530.00							
	Area Waeightage @ 10%	53.00							
	Total Rate	583.00							
18	Loading and Unloading of Stone Boulder/Stone aggregates/Sand/Kankar/Moorum. (Tipper 14 m3) (PWD SR 2023-24 Vol-III Page No.5, Item No.1.1)	Cum							
	Qty Vide Item No. 3		1	1268.22	--	--	1268.22		
	Qty Vide Item No.10		1	153.00	--	--	153.00		
						Total	1421.22	148.50	211051.00
	Basic Rate	135.00							
	Area Waeightage @ 10%	13.50							
	Total Rate	148.50							
19	Cost of Haulage Excluding Loading and Unloading Taking output 18 t load and lead 10 km = 180 t.km (PWD SR 2023-24 Vol-III Page No.5, Item No.1.4a)	T.Km							
	Qty Vide Item No. 18		1	1421.22	1.28	--	1819.16		
						Total	1819.16	198.00	360194.00
	15Km = 12x15	180.00							
	Basic Rate	180.00							
	Area Waeightage @ 10%	18.00							
	Total Rate	198.00							
								Sub Total	8400913.00
								GST Charges @ 18%	1512164.34
								PMC Charges 1%	84009.13
								Miscellenious and Rounding off	2913.53
								Total Amount	10000000.00
	One Hundred Lakh rupees only.								

CERTIFICATE:

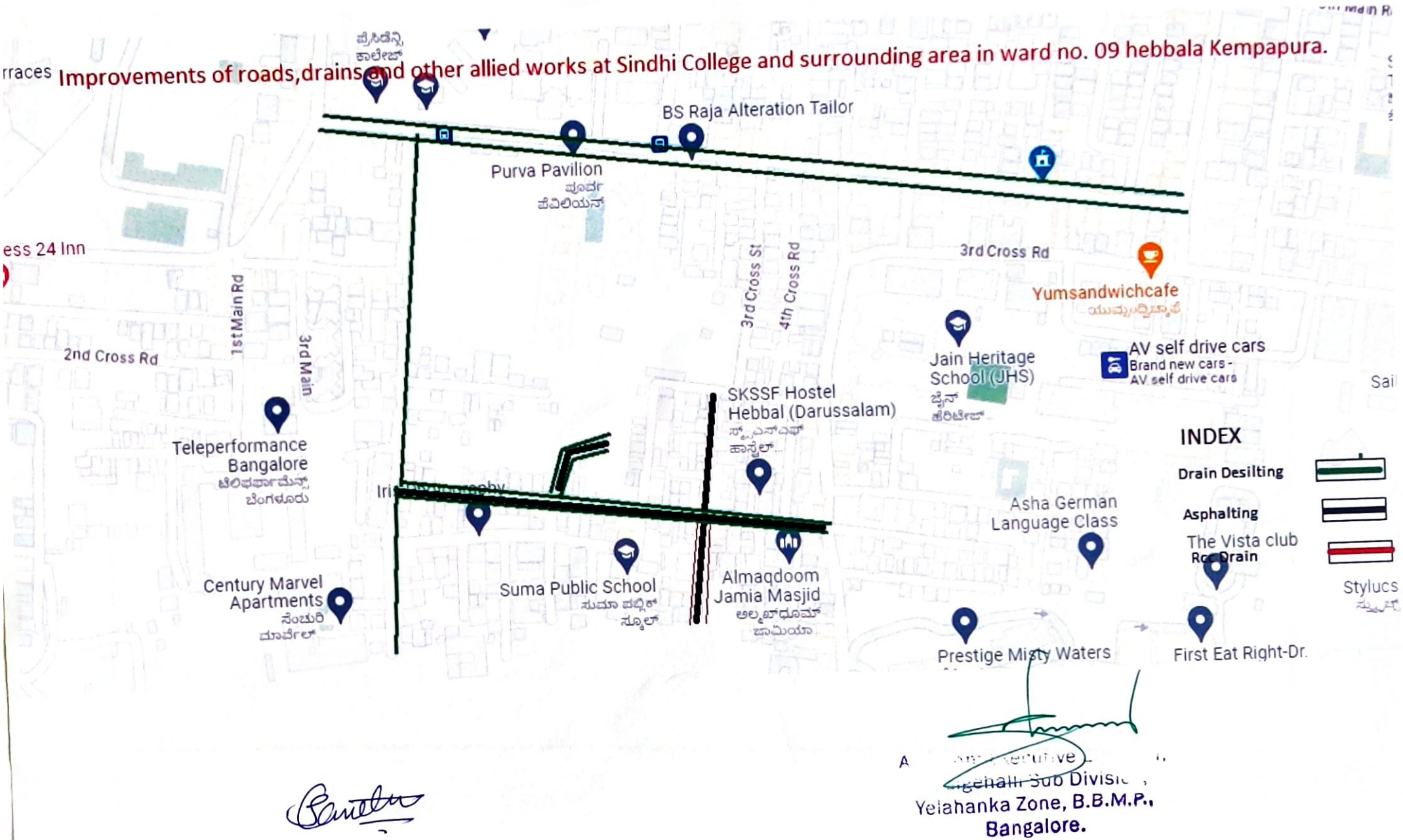
1 The work spot has been inspected and the work is found necessary.
2 This estimate is prepared as per PWD SR of 2023-24
3 The provisions were made in this estimate are necessary and adequate.
4 This works come under B.B.M.P. limits.

Assistant Engineer
Ward No. 09

Assistant Executive Engineer
Sub Division
Bruhat Bangalore Mahanagara Palike

Assistant Executive Engineer,
Kadugondanahalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore.

Improvements of roads,drains and other allied works at Sindhi College and surrounding area in ward no. 09 hebbala Kempapura.



Executive
Yelahanka Zone, B.B.M.P.,
Bangalore.